

The UNEP Industry and Environment Centre (UNEP IE)

The United Nations Environment Programme's Industry and Environment Centre (UNEP IE) was established by UNEP in 1975 to bring industry and government together to promote environmentally sound industrial development.

The mission of UNEP IE is "to encourage the development and implementation of industrial policies, strategies, technologies and management practices that contribute to sustainable development by making efficient use of natural resources as well as by reducing industrial pollution and risk".

The goals of UNEP IE are to:

- build consensus for preventive environmental protection through cleaner and safer industrial production and consumption;
- help formulate policies and strategies to achieve cleaner and safer production and consumption patterns, and facilitate their implementation;
- define and encourage the incorporation of environmental criteria in industrial production;
- stimulate the exchange of information on environmentally sound technologies (ESTs) and forms of industrial development.

To achieve these goals, UNEP IE has developed seven work programme areas: Cleaner Production; Safer Production (Awareness and Preparedness for Emergencies at the Local Level – APELL); Industrial Pollution Management; Environmental Technology Assessment (EnTA); Energy; Tourism; and protection of the ozone layer (OzonAction).

UNEP IE's general approach is to:

- define the concepts, policies and tools that will lead to sustainable production and consumption;

- create widespread awareness of these concepts, policies and tools;
- help build capabilities for implementing them;
- demonstrate their effectiveness;
- monitor results and achievements regularly.

In this context, UNEP IE organizes conferences and seminars, undertakes training activities and demonstration projects, and produces practical supporting publications, such as the *Industry and Environment* quarterly review and the technical report series, as well as other handbooks and training materials which provide practical information to decision makers throughout the world. UNEP IE also uses new delivery mechanisms (diskettes, World Wide Web) to render the information more accessible.

UNEP IE develops partnerships with industry, government, non-governmental organizations (NGOs) and other international organizations, and arranges consultative meetings between industry, NGOs and other partners on issues of mutual interest.

UNEP IE, with a focus on industrial technologies, works together with the UNEP International Environmental Technology Centre (IETC) to promote access to ESTs and their use.

UNEP Industry and Environment Centre

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The UNEP International Environmental Technology Centre (IETC)

The International Environmental Technology Centre (IETC) was established by UNEP in April 1994. It has offices at two locations in Japan – Osaka City and Kusatsu, Shiga Prefecture.

The centre's main function is to promote the application of environmentally sound technologies (ESTs) in developing countries and countries with economies in transition. IETC pays specific attention to urban problems, such as sewage, air pollution, solid waste and noise, and to the management of freshwater lake and reservoir basins.

IETC is supported in its operations by two Japanese foundations: The Global Environment Centre Foundation (GEC), which is based in Osaka and handles urban environmental problems; and the International Lake Environment Committee Foundation (ILEC), which is located in Shiga Prefecture and contributes accumulated knowledge on sustainable management of freshwater resources.

IETC's mandate is based on Agenda 21, which came out of the United Nations Conference on Environment and Development (UNCED) process. Consequently, IETC pursues a result-oriented work plan revolving around three issues, namely:

- improving access to information on ESTs;
- fostering technology cooperation, partnerships and transfer;
- building endogenous capacity.

The centre, together with UNEP IE in the field of industrial technology, brings together information on technologies and makes it available through its directory of ESTs. Equally importantly, it works with partner organizations

within the United Nations system and elsewhere to increase the management and decision-making capability of those responsible for managing cities and freshwater basins in developing countries and countries with economies in transition, so that ESTs can be adopted and used. The adoption and use of ESTs are recognized as being critical to countries' ability to achieve sustainable development.

Capacity-building activities are approached through the development of modules for use in training. These are structured so that they can be used flexibly, in a variety of formats and programmes. The centre makes best use of its resources by working with partner organizations also engaged in capacity-building or direct investment programme implementation.

In short, IETC is a small office, poised and equipped to make a major contribution to the achievement of sustainable development.

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Selected publications from UNEP IE and IETC

UNEP IE

Cleaner production

CP18 *Ecodesign – A Promising Approach to Sustainable Production and Consumption*, a joint UNEP/Ratheneau Institute/TU Delft publication, 1997, 346 pages, FF750 / US\$150.

CP17 *ICPIC-DV*, the diskette version 3 of the International Cleaner Production Information Clearinghouse, operating on any IBM-compatible computer, UNEP, 1998, FF250 / US\$50.

CP1 *Cleaner Production: A Guide to Sources of Information*, 1998, 35 pages, FF75 / US\$15.

CP16 *Eco-Efficiency and Cleaner Production, Charting the Course to Sustainability*, a joint UNEP/WBCSD publication, 1996, 17 pages, free of charge.

CP15 *Cleaner Production in China: A Story of Successful Cooperation*, 1996, 10 pages, FF40 / US\$8.

CP14 *Life Cycle Assessment: What it is and How to do it*, 1996, 92 pages, FF200 / US\$40.

CP9 *Cleaner Production Worldwide*, Volume II, 1995, 48 pages, FF100 / US\$20.

CP8 *Government Strategies and Policies for Cleaner Production*, 1994, 32 pages, FF100 / US\$20.

CP7 *Cleaner Production in the Asia Pacific Economic Cooperation Region*, 1994, 41 pages, FF100 / US\$20.

CP6 *Cleaner Production Worldwide*, Volume I, 1993, 36 pages, FF100 / US\$20.

CP4 *Climate Change and Energy Efficiency in Industry*, a joint UNEP IE/IPIECA publication, 1991, 64 pages, free of charge.

CP3 *Audit and Reduction Manual for Industrial Emissions and Wastes (TR7)*, a joint UNEP/UNIDO publication, 1991, 127 pages, FF200 / US\$40 (also in French and Spanish – Spanish version can be ordered from UNEP/ROLAC, Boulevard de los Virreyes N° 155, Loma-Virreyes, 11000 Mexico D.F., Mexico).

Cleaner Production Newsletter, a twice-yearly bulletin included in the *Industry and Environment* review (see next page) (also in French and Spanish).

Industrial pollution management

PM35 *Environmental Management in Oil and Gas Exploration and Production (TR37)*, a joint UNEP/E&P Forum publication, 1997, 68 pages, £25 / US\$40.

PM34 *The Environmental Management of Industrial Estates (TR39)*, 1997, 138 pages, FF300 / US\$60.

PM33 *Steel Industry and the Environment – Technical and Management Issues (TR38)*, a joint UNEP/IISI publication, 1997, 155 pages, FF350 / US\$70.

PM32 *Environmental Management in the Pulp and Paper Industry (TR34)*, 1996, 232 pages, FF300 / US\$60.

PM31 *Mineral Fertilizer Production and the Environment (TR26)*, a joint UNEP/UNIDO/IFA publication, 1996, 150 pages, FF200 / US\$40.

PM29 *Monitoring Industrial Emissions and Wastes (TR27)*, a joint UNEP/UNIDO publication, 1996, 131 pages, FF200 / US\$40.

PM27 *Industry & Environment Emission Standards & Guidelines Information Clearinghouse (IE-ESCGIC)*, four volumes: *Vol. I Textile Industry Effluent Discharge Standards*, *Vol. II Pulp & Paper Industry Effluent Discharge Standards*, *Vol. IIIa Iron & Steel Industry Air Emission Standards*, *Vol. IIIb Iron & Steel Industry Effluent Discharge Standards*, 1996, FF150 / US\$30 per volume or FF450 / US\$90 for four volumes.

PM24 *Case Studies Illustrating Environmental Practices in Mining and Metallurgical Processes*, a joint UNEP/ICME publication, 1996, 61 pages, FF100 / US\$20.

PM23 *Environmental Management in the Brewing Industry (TR33)*, 1996, 108 pages, FF200 / US\$40.

PM21 *Environmental Management in the Electronics Industry – Semiconductor Manufacture and Assembly (TR23)*, a joint UNEP/UNIDO publication, 1995, 161 pages, FF175 / US\$35.

PM20 *Environmental Aspects of Industrial Wood Preservation – A Technical Guide (TR20)*, a joint UNEP/FAO publication, 1994, 105 pages, FF150 / US\$30 (also in French).

PM18 *The Textile Industry and the Environment (TR16)*, 1994, 120 pages, FF175 / US\$35.

PM16 *Hazardous Waste: Policies and Strategies Training Manual (TR10)*, 1992, 262 pages, FF500 / US\$100 (also in French, Spanish and Russian – Spanish version can be ordered from ECLAC, av. Dag Hammarskjöld s/n., Casilla 179-D, Santiago, Chile).

PM15 *Environmental Aspects of Selected Non-Ferrous Metals (Cu, Ni, Pb, Zn, Au) Ore Mining (TR5)*, a joint UNEP/ILO publication, 1992, 116 pages, FF250 / US\$50 (also in French and Spanish).

PM14 *Tanneries and the Environment (TR4)*, a joint UNEP/UNIDO publication, 1991, 119 pages, FF200 / US\$40.

PM13 *Environmental Aspects of the Metal Finishing Industry – A Technical Guide (TR1)*, 1989, 91 pages, FF200 / US\$40.

Environmental technology assessment (EnTA)

TA3 *Survey of Information Systems Related to Environmentally Sound Technologies*, 1996, 293 pages, FF200 / US\$40.

TA2 *Anticipating the Environmental Effects of Technology – A Primer and Workbook*, 1996, 216 pages, FF120 / US\$24.

TA1 *Industry Environmental Compliance (TR36)*, 1996, 158 pages, FF200 / US\$40.

UNEP Industry and Environment review

A quarterly review providing a forum for the exchange of research and experience for and by industry, government and academia.

Annual subscription US\$60

Single issue FF75 / US\$15

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UNEP IETC

Training Needs in Utilising Environmental Technology Assessment (EnTA) for Decision-Making – A Preliminary Study to Strengthen Capabilities in Managing Environmentally Sound Technologies (ESTs), IETC Technical Publication Series 1, 1995, 60 pages, free of charge.

Earthquake Waste Symposium Osaka, 12-13 June 1995 – Proceedings, IETC Technical Publication Series 2, 1995, 134 pages, free of charge.

Environmental Risk Assessment for Sustainable Cities, IETC Technical Publication Series 3, 1996, 57 pages, US\$30.

Forum on the Caspian, Aral and Dead Seas: Symposium on the Aral Sea and the Surrounding Region – Proceedings, IETC Technical Publication Series 4, 1995, 145 pages, free of charge.

Work-Book for Training in Environmental Technology Assessment for Decision-Makers, IETC Technical Publication Series 5, 1997, 255 pages, free of charge.

International Source Book on Environmentally Sound Technologies for Municipal Solid Waste Management, IETC Technical Publication Series 6, 1996, 427 pages, US\$60.

UNEP Survey of Information Systems Related to Environmentally Sound Technologies, a joint UNEP IE/IETC/INFOTERRA publication, 1997, 237 pages, US\$40.

The Councillor as Guardian of the Environment (A Training Handbook for Elected Leadership on How to Utilize Environmentally Sound Technologies), IETC Technical Publication Series 7, 1997, 190 pages, free of charge.

Workbook for Training in Adopting, Applying and Operating Environmentally Sound Technologies (ESTs), IETC Report Series 1, 1997, 293 pages, free of charge.

IETC's *INSIGHT*, a periodical newspaper in the field of environmentally sound technologies for urban and freshwater basins' management, starting with the autumn 1994 edition, 8-12 pages, free of charge.

For any of the above publications, please send your order to:

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ELECTRICIDADE DE MOÇAMBIQUE-E.P.

FUELLING A NATION'S RECOVERY



Moçambique's efforts since ending its devastating 17-year civil war in 1992 have been "impressive", according to James D. Wolfensohn, President of the World Bank. And the country's transformation to a peaceful democratic society and stable growing economy in only five years has been remarkable.

Under a bold programme to modernize the economy, the old system of central planning has been replaced with significant economic liberalization – and with more than 700 enterprises out of about 1,000 privatized, there is now a flourishing private sector, commanding well over two-thirds of industrial output and holding the key to sustained economic development.

Industrial recovery is firmly on the way, and in a country that possesses rich land, marine and mineral resources, including coal and natural gas, the foundations are in place for continued progress.

But Moçambique is not neglecting its responsibilities to the environment.

The National Environment Commission, established after the Rio 'Earth Summit', initiated the National Environment Management Programme – which identifies the major environmental and sustainable development concerns and challenges, contains a national environment policy and strategy, proposes new environmental legislation, and sets out the major priorities for action for managing natural resources, the urban environment and the coastal zone.

The rapidly-growing private sector will play a central role in moving Moçambique's sustainable development agenda forward.

So too will the energy sector. Industry and business need increasing and reliable supplies of energy to run factories and offices. Access to energy is also one way that ordinary people, especially in rural towns and

villages, will expect – and increasingly, will be able – to share in the country's growing prosperity.

Electricity is the fuel to meet these needs: to power industrial and commercial advances, and to revolutionize the everyday life of the whole population.

Electricidade de Moçambique-E.P. is the national electricity utility and will be a powerful force in the country's continuing economic and social recovery, and in spreading the benefits of further economic growth throughout Moçambique.

This means tackling some formidable challenges – such as the logistical difficulties of maintaining security of supply to thinly-scattered consumers, the high cost of delivering electricity to them and improving the generally low levels of energy efficiency.

Moreover, those challenges have to be met without damaging the country's environment. The war left it largely unscathed, the government's national policy and strategy for sustainable development intends to keep it that way and Electricidade de Moçambique-E.P. is determined to contribute to this goal.

We will do so by, for example

- introducing the technologies for producing and distributing electricity efficiently
- applying an environmentally sound approach to all our distribution and transmission operations, and
- implementing policies to help industrial and domestic consumers alike to use energy sensibly.

Electricidade de Moçambique-E.P. shares and fully supports the government's commitment to a sustainable future for the country – and by putting environmental considerations at the forefront of its activities will play an important part in fuelling progress towards it.